

and Iterative Reconstruction (IR). The total radiation dose was calculated for each scan from the Dose Length Product multiplied by conversion factor (0.014). The annual median radiation doses were compared over the study period.

**Results:** After the adoption of the new scanning techniques ( $n = 578$ ), 56% of the scans were done with High Pitch Scanning, 41% with Prospective Gating (36% of which were done with IR) and 3% with retrospective gating and dose modulation. This was associated with more than 80% reduction in the radiation doses with a median radiation dose of 2.7, 1.5 and 1.8 mSiv in 2010, 2011 and 2012 (first 6 months) respectively. There was no difference in the frequency of non-diagnostic studies or imaging quality before and after 2010. A total of 11% and 63% of the scans had a radiation dose less than 1 and 2 mSv respectively.

**Conclusions:** Our analysis demonstrates that in the current era, low radiation CCTA can be routinely done in daily clinical practice.

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## Abstracts from Arab League Countries in the European Society of Cardiology Annual Meeting

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**Introduction:** The European Society of Cardiology (ESC) annual meeting is the largest cardiology meeting worldwide. It is attended by more than 30,000 delegates and more than 4000 abstracts are presented annually. The aim of this analysis is to determine the participation of physicians from Arab leagues countries in the scientific program of the ESC meeting.

**Methods:** The abstract books of ESC meetings between 2005 and 2012 were reviewed online. The total number of abstracts presented from each Arab league country was calculated for each meeting. When authors are from several countries, the country of residence of the first author was considered to be the country of the abstract.

**Results:** In the last 8 years, a total of 225 abstracts from Arab countries were presented at ESC (Average 28 abstracts per meeting) in comparison to 487 abstracts from Turkey. A total of 55% of these abstracts were from Egypt. In 2012, more than 10,000 abstracts were submitted to the ESC meeting, of which 187 abstracts (1.9%) were from Arab countries. The acceptance rate of abstracts from Arab countries was 15% (compared to nearly 40% overall acceptance rate and 35% acceptance rate of Turkish abstracts). Thus, in the 2012 meeting, only 28 abstracts (0.7%) from Arab countries were presented in comparison to 77 abstracts from Turkey ( $p < 0.001$ ).

**Conclusions:** Nearly 2% of abstracts submitted to ESC annual meeting are by investigators from Arab countries. These abstracts have lower than average acceptance rate resulting in less than 1% of the abstracts presented at ESC being from Arab countries.

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## Can a swallowed foreign body cause severe mitral valve regurgitation ?

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**Background:** Very rarely a foreign body in the esophagus may penetrate anteriorly to heart or aorta. Such foreign bodies may cause pericardial effusion and cardiac tamponade.

**Aim:** To report that an accidentally swallowed foreign body in the esophagus may penetrate the heart and even cause severe mitral regurgitation.

**Material and methods:** A 20 month old girl previously healthy presented to the emergency department with 3 days history of fever, respiratory distress, vomiting and poor feeding. The mother reported that her child had some choking event almost a week before, when the child was admitted to another hospital where diagnosis was made of myocarditis. Anti-failure medications prescribed.

On examination she had palpable peripheral pulses, a pansystolic murmur on the cardiac apex, and hepatomegaly. EKG showed sinus tachycardia with left ventricular hypertrophy. Chest X-ray revealed normal cardiac size with lungs congestion and suspicion of possible foreign body. Echocardiography showed dilatation of the left atrium and of the pulmonary veins, severe mitral regurgitation with an echogenic structure in next to the posterior mitral valve leaflet with consensual moving. Chest CT scan revealed a high-density metallic foreign body inside the heart in correspondence of the left atrio-ventricular junction. The foreign body was removed surgically and proved to be a thin shiny metal bar, 2 cm in length. The mitral valve was completely damaged and was replaced by mechanical valve (Carbomedics 18 mm). The postoperative course was uneventful and patient was discharged home with anti-failure medications (frusemide, captopril) and warfarin. She remained asymptomatic one year after surgery.

**Conclusion:** The process of diagnosing a foreign body in an infant or a toddler, eroding from the esophagus to the heart was very tricky. The diagnosis was suspected by the history of choking. The x-ray of the chest showed an abnormal structure on the heart shadow, which was further underlined by the echocardiogram suggesting abnormal structure in the heart. Finally CT angio of heart confirmed a metallic foreign body in the left atrium. Happily, MRI was not done; it may have proved disastrous in such a case.

The strategy regarding foreign body management either conservative or by its removal either by cardiac catheterization or surgery, depends on location, size of foreign body as well as on whether the patient is symptomatic and in danger to develop further complications. In our case, as the foreign body was in the left atrium and the patient was very critically ill, we opted to remove it by surgery. Moreover, it was thought that patient might need mitral valve repair but